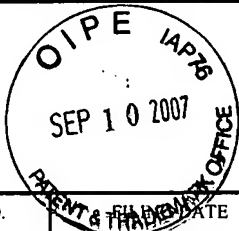




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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,333	02/17/2004	Keith Leslie Williams	3170.1001-001	9422

21005 7590 09/05/2007
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133

EXAMINER

GORDON, BRIAN R

ART UNIT	PAPER NUMBER
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1743

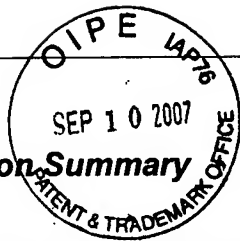
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09/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



Office Action Summary

Application No.

10/781,333

Applicant(s)

WILLIAMS ET AL.

Examiner

Brian R. Gordon

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 9, 13-16, 23-24 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims are respectively directed to the fluid, reagent, sample, and placement of the array. The claims do not add any further structure to the claims. The fluid, reagent, sample, and array are elements that are not positively claimed as elements of the apparatus, hence any description or limitations directed thereto are not considered further structurally limiting. Even if the elements were positively claimed the reference would meet the limitations.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7, 9, 11-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Balch et al. US 6,479,301

Balch et al. devices for preparing a reaction substrate for use as an assay device, and methods of using these devices. The devices prepare reaction substrates comprising arrays of biosites bound to reaction substrates. The devices have a plurality of bundled capillary tubes that convey capture probes from a storage area for eventual deposition onto a biosite on a reaction substrate.

The multiplexed assay can be designed in a standard 96 well microtiter plate format for room temperature operation to accommodate conventional robotic systems utilized for sample delivery and preparation. Also, the proximal CCD-based imager (image recorder) with a graphical user interface will enable the automation of the parallel acquisition of the numerous hybridization test results. The CCD imaging system software provides automated filtering, thresholding, labeling, statistical analysis and quantitative graphical display of each probe/target binding area within seconds (column 6, line 31+).

The accompanying proximal CCD detector/imager offers high spatial and digital resolution. In the preferred embodiment, CCD will support the imaging of hundreds to thousands of individual biosites on a reaction substrate. Together with 16 bit digital imaging, a highly quantitative image of the high density of biosites is achieved.

Specifically the device includes and ink-jet printer to be employed for printing the biological fluids to form the biosites, proximal CCD detector /imager, bound universal capture probes are arranged in an array of biosites attached to a solid support (for extraction), various labels for identifying molecules, the CCD can provide simultaneous imaging and spectroscopy (analyzer) in the same image.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 6, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balch et al.

Balch et al. do not specify the inclusion of valve control devices a 3-way valve.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ various valves including 3-way valves to connect the different components to allow adequate control of the pressure within the system of Balch et al.

As to claim 8, piezoelectric actuators are well known in the art of fluid transport treatment as being employed for various purposes including fluid control and deposition. It would have been obvious to one of ordinary skill in the art at the time of the invention recognize the multiple inkjet devices may include piezoelectric actuators as conventionally known in the art.

As to claim 10, Balch et al. does not specify the use of a chromatograph cartridge, however Balch recognizes chromatography may be employed (Example VI). It would have been obvious to one of ordinary skill in the art to recognize the device maybe modified to include a chromatograph column as indicated in Example VI.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McGrew; Stephen P et al.; Coassin; Peter J. et al.; Caren, Michael P. et al.; Laurell, Thomas et al.; Chesk, William G. et al.; Peck, Bill J. et al.; Petroff, Christopher et al.; Leproust, Eric M. et al.; Petroff, Christopher; Williams, Roger O. et al.; Shchegrova, Svetlana V. et al.; De La Torre-Bueno; Jose; Fisher; William D. et al.; Thompson; Allen C. et al.; Matson; Robert S. et al.; Ganz; Brian L. et al.;

Henderson; Eric et al.; Bass; Jay K.; Perbost; Michel G. M.; Webb; Peter G.; Caren; Michael P. et al.; Ellson; Richard N. et al.; de la Torre-Bueno; Jose; Fisher; William D. et al.; Sheridan; Richard et al.; Caren; Michael P. et al.; Ganz; Brian L. et al.; Bass; Jay K.; Coassin; Peter J. et al.; Webb; Peter G.; Platt et al.; and Bass; Jay K. et al. disclose fluid delivery devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, 1st Fri. Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



BRIAN R. GORDON
PRIMARY EXAMINER

Brian R Gordon
Primary Examiner
Art Unit 1743

Notice of References Cited

Application/Control No.

10/781,333

Applicant(s)/Patent Under
Reexamination
WILLIAMS ET AL.

Examiner

Brian R. Gordon

Art Unit

1743

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U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2006/0154248	07-2006	McGrew et al.	435/006
*	B	US-2006/0057029	03-2006	Coassin et al.	422/100
*	C	US-2005/0084866	04-2005	Caren et al.	435/006
*	D	US-2005/0047962	03-2005	Laurell et al.	422/063
*	E	US-2005/0019223	01-2005	Platt et al.	422/100
*	F	US-2004/0241667	12-2004	Chesk et al.	435/006
*	G	US-2004/0203173	10-2004	Peck et al.	436/180
*	H	US-2004/0157336	08-2004	Petroff et al.	436/047
*	I	US-2004/0151635	08-2004	Leproust et al.	422/100
*	J	US-2004/0120861	06-2004	Petroff, Christopher	422/100
*	K	US-2003/0161761	08-2003	Williams et al.	422/63
*	L	US-2003/0143329	07-2003	Shchegrova et al.	427/256
*	M	US-7,226,788	06-2007	De La Torre-Bueno, Jose	436/46

FOREIGN PATENT DOCUMENTS

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	P					
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	R					
	S					
	T					

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	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 3170.1001-001	APPLICATION NO. 10/781,333	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION September 2, 2004 (See several sheets if necessary)		FIRST NAMED INVENTOR Keith Leslie Williams		FILING DATE February 17, 2004
		EXAMINER Not Assigned	CONFIRMATION NO. 9422	GROUP 2857

U.S. PATENT DOCUMENTS				
EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
AA		4,960,999	10-02-1990	McKean <i>et al.</i>
AB		5,671,086	09-23-1997	Parvin <i>et al.</i>
AC		4,877,745	10-31-1989	Hayes <i>et al.</i>
AD		5,667,656	09-16-1997	Kambara
AE		6,007,231	12-28-1999	Vijg <i>et al.</i>
AF		6,090,545	07-18-2000	Wohlstadter <i>et al.</i>
AG		5,534,121	07-09-1996	Merrick <i>et al.</i>
AH		5,993,634	11-30-1999	Simpson <i>et al.</i>
AI		5,273,877	12-28-1993	Fey <i>et al.</i>

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		DOCUMENT NUMBER Country Code-Number-Kind Code (if known)	DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	TRANSLATION YES NO
AL		WO96/09600	03-28-1996	Neopath, Inc.	
AM		WO98/07022	02-19-1998	Imaging Research, Inc.	
AN		EP 0 646 784 A1	04-05-1995	Miles, Inc.	
AQ		WO97/44134	11-27-1997	Incyte Pharmaceuticals, Inc.	
AP		WO98/23950	06-04-1998	Oxford Glycosciences, Ltd.	
AQ		WO00/79238 A1	12-28-2000	Proteome Systems, Ltd.	
ALZ		WO02/075321 A1	09-26-2002	Proteome Systems, Ltd.	
AM2					

EXAMINER <i>B. A. N.</i>	DATE CONSIDERED <i>3/29/07</i>
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Notice of References Cited

Application/Control No.

10/781,333

Applicant(s)/Patent Under
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Examiner

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-7,141,368	11-2006	Fisher et al.	435/6
*	B	US-7,101,508	09-2006	Thompson et al.	422/67
*	C	US-7,070,740	07-2006	Matson et al.	422/104
*	D	US-7,025,933	04-2006	Ganz et al.	422/63
*	E	US-7,008,769	03-2006	Henderson et al.	435/6
*	F	US-6,943,036	09-2005	Bass, Jay K.	436/180
*	G	US-6,900,048	05-2005	Perbost, Michel G. M.	435/287.3
*	H	US-6,890,760	05-2005	Webb, Peter G.	436/180
*	I	US-6,872,359	03-2005	Caren et al.	422/63
*	J	US-6,809,315	10-2004	Ellson et al.	250/288
*	K	US-6,855,925	02-2005	Ellson et al.	250/288
*	L	US-6,800,249	10-2004	de la Torre-Bueno, Jose	422/63
*	M	US-6,689,319	02-2004	Fisher et al.	422/67

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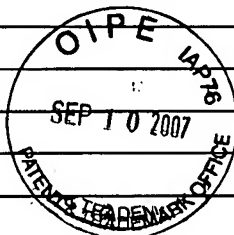
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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,673,315	01-2004	Sheridan et al.	422/50
*	B	US-6,656,740	12-2003	Caren et al.	436/164
*	C	US-6,558,623	05-2003	Ganz et al.	422/63
*	D	US-6,420,180	07-2002	Bass, Jay K.	436/43
*	E	US-6,660,233	12-2003	Coassin et al.	422/104
*	F	US-6,613,893	09-2003	Webb, Peter G.	536/25.3
*	G	US-6,713,023	03-2004	Bass et al.	422/102
*	H	US-6,479,301	11-2002	Balch et al.	436/518
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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